

## Title (en)

MicroRNA (miRNA) miR-21 for diagnostic and therapeutic purposes

## Title (de)

MicroRNA (MIRNA) MIR-21 für Diagnose- und Therapie Zwecke

## Title (fr)

Micro-ARN (MIARN) MIR-21 à des fins diagnostiques et thérapeutiques

## Publication

**EP 2628800 A1 20130821 (EN)**

## Application

**EP 13160931 A 20090226**

## Priority

- US 3183508 P 20080227
- EP 08003570 A 20080227
- US 3334008 P 20080303
- EP 2009051986 W 20090219
- EP 09714079 A 20090226
- EP 13160931 A 20090226

## Abstract (en)

The invention relates to a promoter region of a microRNA, the use of a microRNA, in particular miR-21, related elements for diagnosis and manufacture of a medicament for treatment and/or prevention of fibrosis and/or fibrosis related diseases. The invention concerns antisense oligonucleotides against targets of miR-21. A cell deficient for miR-21, the promoter region and targets of miR-21 and a knock-out organism thereof are encompassed. The invention is directed to a method for diagnosing fibrosis and/or fibrosis related diseases and to a method for screening a pharmaceutically active compound for the treatment of fibrosis and/or fibrosis related diseases. The invention relates to compositions for use in the treatment, amelioration, and/or prevention of fibrosis. In certain embodiments, the compositions modulate the activity of a miRNA for the treatment, amelioration, and/or prevention of fibrosis. In certain embodiments, the compositions inhibit the activity of miR-21 for the treatment, amelioration, and/or prevention of fibrosis.

## IPC 8 full level

**C12N 15/113** (2010.01); **A61K 31/712** (2006.01)

## CPC (source: EP KR US)

**A61K 31/7088** (2013.01 - EP US); **A61K 31/7105** (2013.01 - KR); **A61K 31/713** (2013.01 - EP US); **A61K 45/06** (2013.01 - US); **A61K 48/00** (2013.01 - KR); **A61P 1/00** (2018.01 - EP); **A61P 1/16** (2018.01 - EP); **A61P 7/10** (2018.01 - EP); **A61P 9/00** (2018.01 - EP); **A61P 9/04** (2018.01 - EP); **A61P 9/06** (2018.01 - EP); **A61P 9/08** (2018.01 - EP); **A61P 9/10** (2018.01 - EP); **A61P 9/12** (2018.01 - EP); **A61P 11/00** (2018.01 - EP); **A61P 13/12** (2018.01 - EP); **A61P 15/08** (2018.01 - EP); **A61P 17/00** (2018.01 - EP); **A61P 19/02** (2018.01 - EP); **A61P 19/04** (2018.01 - EP); **A61P 21/00** (2018.01 - EP); **A61P 29/00** (2018.01 - EP); **A61P 31/14** (2018.01 - EP); **A61P 35/00** (2018.01 - EP); **A61P 35/02** (2018.01 - EP); **A61P 43/00** (2018.01 - EP); **C12N 15/113** (2013.01 - EP KR US); **C12N 2310/113** (2013.01 - EP US); **C12N 2310/14** (2013.01 - EP US); **C12N 2310/141** (2013.01 - EP US); **C12N 2310/315** (2013.01 - EP US); **C12N 2310/321** (2013.01 - EP US); **C12N 2310/3233** (2013.01 - EP US); **C12N 2310/345** (2013.01 - EP US); **C12N 2310/3515** (2013.01 - EP US); **C12N 2310/3517** (2013.01 - EP US); **C12N 2320/31** (2013.01 - US)

## C-Set (source: EP US)

**C12N 2310/321** + **C12N 2310/3521**

## Citation (search report)

- [A] WO 2006053014 A2 20060518 - BAYLOR COLLEGE MEDICINE [US], et al
- [A] CHENG YUNHUI ET AL: "MicroRNAs are aberrantly expressed in hypertrophic heart - Do they play a role in cardiac hypertrophy?", AMERICAN JOURNAL OF PATHOLOGY; [10640], AMERICAN SOCIETY FOR INVESTIGATIVE PATHOLOGY, US, vol. 170, no. 6, 1 June 2007 (2007-06-01), pages 1831 - 1840, XP009098830, ISSN: 0002-9440, DOI: 10.2353/AJPATH.2007.061170
- [A] TATSUGUCHI ET AL: "Expression of microRNAs is dynamically regulated during cardiomyocyte hypertrophy", JOURNAL OF MOLECULAR AND CELLULAR CARDIOLOGY, ACADEMIC PRESS, GB, vol. 42, no. 6, 1 June 2007 (2007-06-01), pages 1137 - 1141, XP022103100, ISSN: 0022-2828, DOI: 10.1016/J.YJMCC.2007.04.004

## Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

## Designated extension state (EPC)

AL BA RS

## DOCDB simple family (publication)

**EP 2096171 A1 20090902**; AU 2009218704 A1 20090903; AU 2009218704 B2 20140918; AU 2009218704 C1 20150129; BR PI0907565 A2 20190528; BR PI0907565 B1 20211130; CA 2716643 A1 20090903; CA 2716643 C 20210803; CA 3123067 A1 20090903; CN 102027113 A 20110420; CN 102027113 B 20170818; CY 1114426 T1 20160831; DK 2260101 T3 20130819; EA 020335 B1 20141030; EA 201070992 A1 20110429; EP 2260101 A1 20101215; EP 2260101 B1 20130529; EP 2628800 A1 20130821; ES 2436885 T3 20140107; HK 1150857 A1 20120113; HR P20130766 T1 20131025; IL 207704 A0 20101230; IL 207704 A 20161130; JP 2011516410 A 20110526; JP 2015107971 A 20150611; JP 6033527 B2 20161130; KR 101697482 B1 20170118; KR 20100126430 A 20101201; ME 01600 B 20140920; MX 2010009346 A 20101220; MX 336299 B 20160114; MY 159454 A 20170113; NZ 588185 A 20121130; PL 2260101 T3 20131031; PT 2260101 E 20130905; SI 2260101 T1 20131030; UA 100727 C2 20130125; US 10028974 B2 20180724; US 10434117 B2 20191008; US 2011071211 A1 20110324; US 2013018084 A1 20130117; US 2014121264 A1 20140501; US 2016177302 A1 20160623; US 2017304347 A1 20171026; US 2018360866 A1 20181220; US 2020069720 A1 20200305; US 2021113603 A1 20210422; US 2023028937 A1 20230126; US 2024189339 A1 20240613; US 8236777 B2 20120807; US 8592389 B2 20131126; US 9220722 B2 20151229; US 9663788 B2 20170530; WO 2009106367 A1 20090903; WO 2009106477 A1 20090903

## DOCDB simple family (application)

**EP 08003570 A 20090227**; AU 2009218704 A 20090226; BR PI0907565 A 20090226; CA 2716643 A 20090226; CA 3123067 A 20090226; CN 200980115916 A 20090226; CY 131100690 T 20130813; DK 09714079 T 20090226; EA 201070992 A 20090226; EP 09714079 A 20090226; EP 13160931 A 20090226; EP 2009001590 W 20090226; EP 2009051986 W 20090219; ES 09714079 T 20090226; HK 11104841 A 20110517; HR P20130766 T 20130813; IL 20770410 A 20100819; JP 2010548040 A 20090226; JP 2014246185 A 20141204; KR 20107021182 A 20090226;

ME P9313 A 20090226; MX 2010009346 A 20090226; MX 2011012838 A 20090226; MY PI2010004041 A 20090226; NZ 58818509 A 20090226; PL 09714079 T 20090226; PT 09714079 T 20090226; SI 200930690 T 20090226; UA A201011410 A 20090226; US 201213535652 A 20120628; US 201314061350 A 20131023; US 201514947291 A 20151120; US 201715491633 A 20170419; US 201816015495 A 20180622; US 201916542985 A 20190816; US 202017008782 A 20200901; US 202217846518 A 20220622; US 202318515531 A 20231121; US 91959209 A 20090226